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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,511	02/28/2002	Fumihito Moriya	OKI.311	7471

7590 04/17/2003
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EXAMINER

NGUYEN, JOSEPH H

ART UNIT PAPER NUMBER

2815

DATE MAILED: 04/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/084,511

Applicant(s)

MORIYA, FUMIHIRO

Examiner

Joseph Nguyen

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Eguchi or Keri.

With respect to Eguchi.

Regarding claim 1, Eguchi discloses on figure 18B a semiconductor device formed on a semiconductor chip comprising a circuit area including an electronic circuit disposed on a surface of the semiconductor chip; a metal guard ring 18, 17 disposed on said surface of the semiconductor chip surrounding the circuit area; and a passivation layer 21 covering said surface of the semiconductor chip, the passivation layer having a slot disposed above the metal guard ring, the slot extending down to the metal guard ring and surrounding the circuit area.

Regarding claim 2, Eguchi discloses on figure 18B the metal guard ring has an inside edge and an outside edge, the slot is narrower than the metal guard ring, the inside edge and the outside edge of the metal guard ring covered by the passivation layer.

Regarding claim 3, Eguchi discloses on figure 18B the semiconductor chip has a corner; the metal guard ring has a slit 20 disposed between said inside edge and said

outside edge at least at said corner; and the slot in the passivation layer avoids said slit, leaving said slit covered by the passivation layer.

Regarding claim 4, Eguchi discloses on figure 18B the slot in the passivation layer is disposed between said slit and the outside edge of the metal guard ring.

Regarding claim 5, Eguchi discloses on figure 18B a method of manufacturing a semiconductor device comprising forming an electronic circuit on a surface of a semiconductor chip, and forming a metal guard ring 18, 17 surrounding the electronic circuit on said surface of the semiconductor chip; covering said surface of the semiconductor chip, including the electronic circuit and the metal guard ring with a passivation layer 21, the slot extending down to the metal guard ring and surrounding the electronic circuit.

Regarding claims 6-9, Eguchi discloses on figure 18B all steps of the method set forth in the claimed invention.

With respect to Keri

Regarding claims 1-5, Keri discloses on figures 5-6 all the structures set forth in the claimed invention.

Regarding claims 6-9, Keri discloses on figures 5-6 all steps of the method set forth in the claimed invention.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 5475243 to Saito discloses an insulated gate bipolar transistor.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Nguyen whose telephone number is (703) 308-1269. The examiner can normally be reached on Monday-Friday, 7:30 am- 4:30 pm

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee can be reached on (703) 308-1690. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 308-7382 for regular communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JN
April 9, 2003


SHEILA V. CLARK
PRIMARY EXAMINER